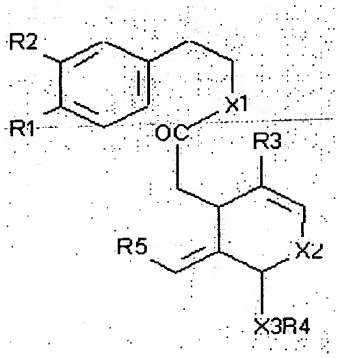
Amendments to the Claims:

1. (Currently Amended) A method for treating cancer in a subject, wherein the cancer is selected from the group consisting of colon cancer, renal adenocarcinoma, and melanoma;

the method comprising administering to a subject in need of such treatment a therapeutically effective amount of a pharmaceutical composition having chemopreventive activity which contains as an active ingredient a therapeutically effective quantity of a compound of the formula or its enantiomer:



wherein R1 and R2 are functional groups selected from the group of hydroxyl, -NH2, -SH ;

R3 is a functional group selected from the group consisting of hydrogen, C1 – C6-alkyl, C2 – C6 – alkenyl, C2 – C6 – alkynyl, aryl, hydroxyl, C1 – C6 – alkoxy, halogen, NO2, NH3 and COOCH3;

X1-X3 are functional groups selected from the group consisting of oxygen, sulfur, -CH2-, or carboxy;

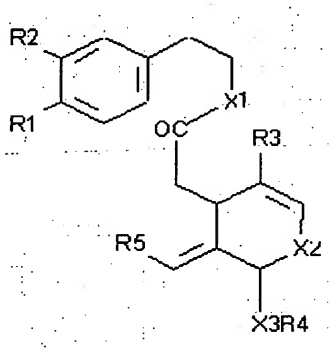
R4 is a functional group selected from the group consisting of hydrogen, C1-C6-alkoxy, glucose, B-D-glucopyranose, C1-C6-alkyl, C2-C6-alkenyl, C2-C6-alkynyl, aryl, hydroxyl, halogen NO2, NH3, carbohydrate, amino acid, nucleotide and lipid; and

R5 is a functional group selected from the group consisting of hydrogen, C1 – C6-alkyl, C2 – C6 – alkenyl, C2 – C6 – alkynyl, aryl, hydroxyl, C1 – C6 – alkoxy, halogen, NO2, NH3, and CH3.

2. (Cancelled)

3. (Currently Amended) A method of inhibiting the growth, motility, invasiveness and metastasis of cancer cells, wherein the cancer cells are selected from the group consisting of colon cancer, renal adenocarcinoma, and melanoma;

the method comprising contacting said cells with a pharmaceutical composition in an amount sufficient to inhibit the cancer or recurrence thereof, said pharmaceutical composition containing a therapeutically effective amount of a compound of the following formula or its enantiomer:



wherein R1 and R2 are functional groups selected from the group consisting of hydroxyl, -NH2, -SH;

R3 is a functional group selected from the group consisting of hydrogen, C1 – C6-alkyl, C2 – C6 – alkenyl, C2 – C6 – alkynyl, aryl, hydroxyl, C1 – C6 – alkoxy, halogen, NO2, NH3 and COOCH3.

X1 – X3 are functional groups selected from the group consisting of oxygen, sulfur, -CH2-, or carboxy;

R4 is a functional group selected from the group consisting of hydrogen, C1-C6-alkoxy, glucose, B-D-glucopyranose, C1-C6-alkyl, C2-C6-alkenyl, C2-C6-alkynyl, aryl, hydroxyl, halogen NO2, NH3, carbohydrate, amino acid, nucleotide, and lipid; and

R5 is a functional group selected from the group consisting of hydrogen, C1 – C6-alkyl, C2 – C6 – alkenyl, C2 – C6 – alkynyl, aryl, hydroxyl, C1 – C6 – alkoxy, halogen, NO2, NH3 and CH3.

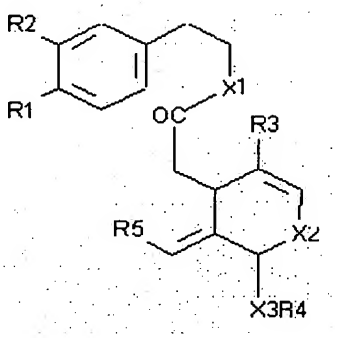
4. (Cancelled)

5. (Currently Amended) The method of Claim 3 wherein said inhibition of the survival, growth, motility, invasiveness and metastasis of cancer cells ~~occur~~ occurs *in vivo*.

6. (Original) The method of Claim 3 wherein said inhibition of the survival, growth, motility, invasiveness and metastasis of cancer cells occurs *in vitro*.

7. (Currently Amended) A method for treating ~~a medical condition in which involves~~ cancer in a subject, wherein said cancer is selected from the group consisting of colon cancer, renal adenocarcinoma, and melanoma;

said method comprising administering to a subject in need of such treatment a therapeutic amount of a pharmaceutical composition operative to effectuate anti-survival, anti-growth, anti-motility, anti-invasiveness and anti-metastasis activity associated with said cancer, the pharmaceutical composition containing as an active ingredient at least one composition produced by the hydrolysis of a compound of the following formula or its enantiomer:



wherein R1 and R2 are functional groups selected from the group consisting of hydroxyl, -NH2, -SH;

R3 is a functional group selected from the group consisting of hydrogen, C1 – C6-alkyl, C2 – C6 – alkenyl, C2 – C6 – alkynyl, aryl, hydroxyl, C1 – C6 – alkoxy, halogen, NO2, NH3 and COOCH3;

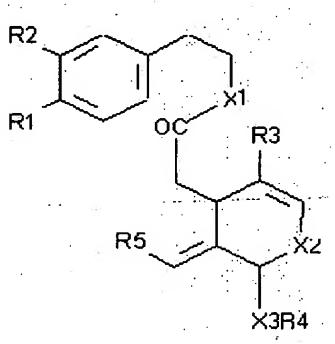
X1-X3 are functional groups selected from the group consisting of oxygen, sulfur, -CH2-, or carboxy;

R4 is a functional group selected from the group consisting of hydrogen, C1-C6-alkoxy, glucose, B-D-glucopyranose, C1-C6-alkyl, C2-C6-alkenyl, C2-C6-alkynyl, aryl, hydroxyl, halogen NO2, NH3, carbohydrate, amino acid, nucleotide and lipid; and

R5 is a functional group selected from the group consisting of hydrogen, C1 – C6-alkyl, C2 – C6 – alkenyl, C2 – C6 – alkynyl, aryl, hydroxyl, C1 – C6 – alkoxy, halogen, NO2, NH3, and CH3.

8. (Currently Amended) A method of inhibiting cancer cell growth comprising contacting the cancer cells with a pharmaceutical composition in an amount sufficient to inhibit growth thereof, wherein said cancer cells are selected from the group consisting of colon cancer, renal adenocarcinoma, and melanoma;

said pharmaceutical composition containing a therapeutically effective amount of a compound selected from the group consisting of at least one composition produced by the hydrolysis of a compound of the following formula or its enantiomer:



wherein R1 and R2 are functional groups selected from the group consisting of hydroxyl, -NH2, -SH;

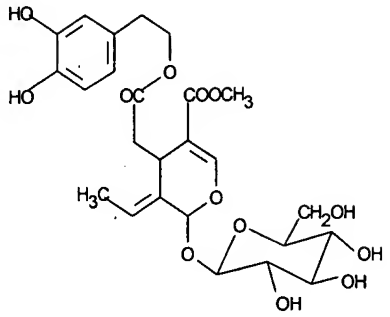
R3 is a functional group selected from the group consisting of hydrogen, C1 – C6-alkyl, C2 – C6 – alkenyl, C2 – C6 – alkynyl, aryl, hydroxyl, C1 – C6 – alkoxy, halogen, NO2, NH3 and COOCH3;

X1-X3 are functional groups selected from the group consisting of oxygen, sulfur, -CH2-, or carboxy;

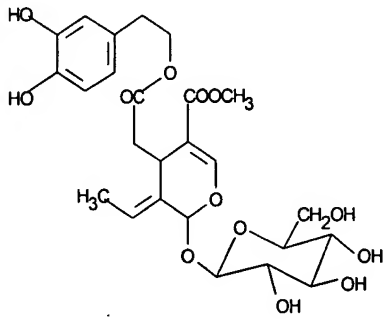
R4 is a functional group selected from the group consisting of hydrogen, C1-C6-alkoxy, glucose, B-D-glucopyranose, C1-C6-alkyl, C2-C6-alkenyl, C2-C6-alkynyl, aryl, hydroxyl, halogen NO2, NH3, carbohydrate, amino acid, nucleotide and lipid; and

R5 is a functional group selected from the group consisting of hydrogen, C1 – C6-alkyl, C2 – C6 – alkenyl, C2 – C6 – alkynyl, aryl, hydroxyl, C1 – C6 – alkoxy, halogen, NO2, NH3, and CH3.

9. (Original) The method of Claim 1 wherein said composition comprises the following formula or its enantiomer:

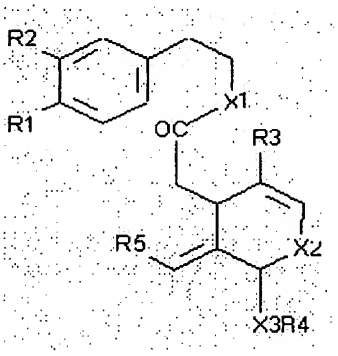


10. (Original) The method of Claim 3 wherein said composition comprises the following formula or its enantiomer:



11. (Currently Amended) A method of treating cancer in an animal in need of such treatment, wherein said cancer is selected from the group consisting of colon cancer, renal adenocarcinoma, and melanoma;

~~that is~~ said method comprised of administering to said patient a therapeutically effective amount of a compound having the following structure or it enantiomer:



wherein R1 and R2 are functional groups selected from the groups consisting of hydroxyl, -NH2, -SH;

R3 is a functional group selected from the group consisting of hydrogen, C1 – C6-alkyl, C2 – C6 – alkenyl, C2 – C6 – alkynyl, aryl, hydroxyl, C1 – C6 – alkoxy, halogen, NO2, NH3 and COOCH3.

X1 – X3 are functional groups selected from the group consisting of oxygen, sulfur, -CH2-, or carboxy;

R4 is a functional group selected from the group consisting of hydrogen, C1-C6-alkoxy, glucose, B-D-glucopyranose, C1-C6-alkyl, C2-C6-alkenyl, C2-C6-alkynyl, aryl, hydroxyl, halogen NO2, NH3, carbohydrate, amino acid, nucleotide, and lipid; and

R5 is a functional group selected from the group consisting of hydrogen, C1 – C6-alkyl, C2 – C6 – alkenyl, C2 – C6 – alkynyl, aryl, hydroxyl, C1 – C6 – alkoxy, halogen, NO2, NH3, and CH3;

or a pharmaceutically acceptable salt, prodrug or hydrate thereof.

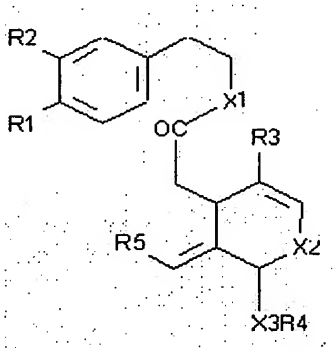
12. (Withdrawn) The method of treating cancer in accordance with Claim 11 wherein said cancer is selected from the group of cancers consisting of the Acute Lymphoblastic Leukemia, Adult; Acute Lymphoblastic Leukemia, Childhood; Acute Myeloid Leukemia, Adult; Adrenocortical Carcinoma; Adrenocortical Carcinoma, Childhood; AIDS-Related Lymphoma;AIDS-Related Malignancies; Anal Cancer; Astrocytoma, Childhood Cerebellar; Astrocytoma, Childhood Cerebral; Bile Duct Cancer, Extrahepatic; Bladder Cancer; Bladder Cancer, Childhood; Bone Cancer, Osteosarcoma/Malignant Fibrous Histiocytoma; Brain Stem Glioma, Childhood; Brain Tumor, Adult; Brain Tumor, Brain Stem Glioma, Childhood; Brain Tumor, Cerebellar Astrocytoma, Childhood; Brain Tumor, Cerebral Astrocytoma/Malignant Glioma, Childhood; Brain Tumor, Ependymoma, Childhood; Brain Tumor, Medulloblastoma, Childhood; Brain Tumor, Supratentorial Primitive Neuroectodermal Tumors, Childhood; Brain Tumor, Visual Pathway and Hypothalamic Glioma, Childhood; Brain Tumor, Childhood (Other); Breast Cancer; Breast Cancer and Pregnancy; Breast Cancer, Childhood; Breast Cancer, Male; Bronchial Adenomas/Carcinoids, Childhood; Carcinoid Tumor, Childhood; Carcinoid Tumor,Gastrointestinal; Carcinoma, Adrenocortical; Carcinoma, Islet

Cell; Carcinoma of Unknown Primary; Central Nervous System Lymphoma, Primary; Cerebellar Astrocytoma, Childhood; Cerebral Astrocytoma/Malignant Glioma, Childhood; Cervical Cancer; Childhood Cancers; Chronic Lymphocytic Leukemia; Chronic Myelogenous Leukemia; Chronic Myeloproliferative Disorders; Clear Cell Sarcoma of Tendon Sheaths; Colon Cancer; Colorectal Cancer, Childhood; Cutaneous T-Cell Lymphoma; Endometrial Cancer; Ependymoma, Childhood; Epithelial Cancer, Ovarian; Esophageal Cancer; Esophageal Cancer, Childhood; Ewing's Family of Tumors; Extracranial Germ Cell Tumor, Childhood; Extragonadal Germ Cell Tumor; Extrahepatic Bile Duct Cancer; Eye Cancer, Intraocular Melanoma; Eye Cancer, Retinoblastoma; Gallbladder Cancer; Gastric (Stomach) Cancer; Gastric (Stomach) Cancer, Childhood; Gastrointestinal Carcinoid Tumor; Germ Cell Tumor, Extracranial, Childhood; Germ Cell Tumor, Extragonadal; Germ Cell Tumor, Ovarian; Gestational Trophoblastic Tumor; Glioma, Childhood Brain Stem; Glioma, Childhood Visual Pathway and Hypothalamic; Hairy Cell Leukemia; Head and Neck Cancer; Hepatocellular (Liver) Cancer, Adult (Primary); Hepatocellular (Liver) Cancer, Childhood (Primary); Hodgkin's Lymphoma, Adult; Hodgkin's Lymphoma, Childhood; Hodgkin's Lymphoma During Pregnancy; Hypopharyngeal Cancer; Hypothalamic and Visual Pathway Glioma, Childhood; Intraocular Melanoma; Islet Cell Carcinoma (Endocrine Pancreas); Kaposi's Sarcoma; Kidney Cancer ; Laryngeal Cancer; Laryngeal Cancer, Childhood; Leukemia, Acute Lymphoblastic, Adult; Leukemia, Acute Lymphoblastic, Childhood; Leukemia, Acute Myeloid, Adult; Leukemia, Acute Myeloid, Childhood; Leukemia, Chronic Lymphocytic; Leukemia, Chronic Myelogenous; Leukemia, Hairy Cell; Lip and Oral Cavity Cancer; Liver Cancer, Adult (Primary); Liver Cancer, Childhood (Primary); Lung Cancer, Non-Small Cell; Lung Cancer, Small Cell; Lymphoblastic Leukemia, Adult Acute; Lymphoblastic Leukemia, Childhood Acute; Lymphocytic Leukemia, Chronic; Lymphoma, AIDS-Related; Lymphoma, Central Nervous System (Primary); Lymphoma, Cutaneous T-Cell; Lymphoma, Hodgkin's, Adult; Lymphoma, Hodgkin's, Childhood; Lymphoma, Hodgkin's During Pregnancy; Lymphoma, Non-Hodgkin's, Adult; Lymphoma, Non-Hodgkin's, Childhood; Non-Hodgkin's During Pregnancy; Lymphoma, Primary Central Nervous System; Macroglobulinemia, Waldenström's; Male Breast Cancer; Malignant Mesothelioma, Adult; Malignant

Mesothelioma, Childhood; Medulloblastoma, Childhood; Melanoma; Melanoma, Intraocular; Merkel Cell Carcinoma; Mesothelioma, Malignant; Metastatic Squamous Neck Cancer with Occult Primary; Multiple Endocrine Neoplasia Syndrome, Childhood; Multiple Myeloma/Plasma Cell Neoplasm; Mycosis Fungoides; Myelodysplastic Syndromes; Myelogenous Leukemia, Chronic; Myeloid Leukemia, Childhood Acute; Myeloma, Multiple; Myeloproliferative Disorders, Chronic; Nasal Cavity and Paranasal Sinus Cancer; Nasopharyngeal Cancer; Nasopharyngeal Cancer, Childhood; Neuroblastoma; Non-Hodgkin's Lymphoma, Adult; Non-Hodgkin's Lymphoma, Childhood; Non-Hodgkin's Lymphoma During Pregnancy; Non-Small Cell Lung Cancer; Oral Cancer, Childhood; Oral Cavity and Lip Cancer; Oropharyngeal Cancer; Osteosarcoma/Malignant Fibrous Histiocytoma of Bone ;Ovarian Cancer, Childhood; Ovarian Epithelial Cancer; Ovarian Germ Cell Tumor; Ovarian Low Malignant Potential Tumor; Pancreatic Cancer; Pancreatic Cancer, Childhood; Pancreatic Cancer, Islet Cell; Paranasal Sinus and Nasal Cavity Cancer; Parathyroid Cancer; Penile Cancer; Pheochromocytoma; Pineal and Supratentorial Primitive Neuroectodermal Tumors, Childhood; Pituitary Tumor; Plasma Cell Neoplasm/Multiple Myeloma; Pleuropulmonary Blastoma; Pregnancy and Breast Cancer; Pregnancy and Hodgkin's Lymphoma; Pregnancy and Non-Hodgkin's Lymphoma; Primary Central Nervous System Lymphoma; Primary Liver Cancer, Adult; Primary Liver Cancer, Childhood; Prostate Cancer; Rectal Cancer; Renal Cell (Kidney) Cancer; Renal Cell Cancer, Childhood; Renal Pelvis and Ureter, Transitional Cell Cancer; Retinoblastoma; Rhabdomyosarcoma, Childhood; Salivary Gland Cancer ;Salivary Gland Cancer, Childhood; Sarcoma, Ewing's Family of Tumors; Sarcoma, Kaposi's; Sarcoma (Osteosarcoma)/Malignant Fibrous Histiocytoma of Bone; Sarcoma, Rhabdomyosarcoma, Childhood; Sarcoma, Soft Tissue, Adult; Sarcoma, Soft Tissue, Childhood; Sezary Syndrome; Skin Cancer; Skin Cancer, Childhood; Skin Cancer (Melanoma); Skin Carcinoma, Merkel Cell; Small Cell Lung Cancer; Small Intestine Cancer; Soft Tissue Sarcoma, Adult; Soft Tissue Sarcoma, Childhood; Squamous Neck Cancer with Occult Primary, Metastatic; Stomach (Gastric) Cancer; Stomach (Gastric) Cancer, Childhood; Supratentorial Primitive Neuroectodermal Tumors, Childhood; T-Cell Lymphoma, Cutaneous; Testicular Cancer; Thymoma, Childhood; Thymoma and Thymic Carcinoma; Thyroid Cancer; Thyroid Cancer, Childhood;

Transitional Cell Cancer of the Renal Pelvis and Ureter; Trophoblastic Tumor, Gestational; Unknown Primary Site, Carcinoma of, Adult; Unknown Primary Site, Cancer of, Childhood; Unusual Cancers of Childhood; Ureter and Renal Pelvis, Transitional Cell Cancer; Urethral Cancer; Uterine Cancer, Endometrial; Uterine Sarcoma; Vaginal Cancer; Visual Pathway and Hypothalamic Glioma, Childhood; Vulvar Cancer; Waldenström's Macroglobulinemia; Wilms' Tumor.

13. (Withdrawn) A method for conferring resistance to animal cells to thus render the cells resistant to infection by viral, bacterial, and parasitic organisms comprising contacting said cells with a pharmaceutical composition in an amount sufficient to confer resistance thereof, said pharmaceutical composition containing an effective amount of a compound of the following formula or its enantiomer:



wherein R1 and R2 are functional groups selected from the group consisting of hydroxyl, -NH2, -SH;

R3 is a functional group selected from the group consisting of hydrogen, C1 – C6-alkyl, C2 – C6 – alkenyl, C2 – C6 – alkynyl, aryl, hydroxyl, C1 – C6 – alkoxy, halogen, NO2, NH3 and COOCH3.

X1 – X3 are functional groups selected from the group consisting of oxygen, sulfur, -CH2-, or carboxy;

R4 is a functional group selected from the group consisting of hydrogen, C1-C6-alkoxy, glucose, B-D-glucopyranose, C1-C6-alkyl, C2-C6-alkenyl, C2-C6-alkynyl, aryl, hydroxyl, halogen NO2, NH3, carbohydrate, amino acid, nucleotide, and lipid; and

R5 is a functional group selected from the group consisting of hydrogen, C1 – C6-alkyl, C2 – C6 – alkenyl, C2 – C6 – alkynyl, aryl, hydroxyl, C1 – C6 – alkoxy, halogen, NO2, NH3 and CH3.

14. (Withdrawn) The method of treating diseases in accordance with Claim 13 wherein said cells are infected with HIV, malaria, helicobacter pylori, and vaginal yeast infections.

15. (Cancelled)

16. (Withdrawn) The method of treating diseases in accordance with Claim 15 wherein said diseases are selected from the group consisting of burns, scrapes, cuts, trauma, fibroids, cysts, keloid, acne, gastritis, vaginal, cervical, uterine, ovary, gastric, corneal, retinal, diabetic, AIDS-related scarring, iliac, and colon ulcers, interstitial lung disease, human fibrotic lung disease, human kidney disease, glomerular nephritis, nephritis associated with systemic lupus, peritoneal fibrosis, cystic fibrosis, liver fibrosis, myocardial fibrosis, pulmonary fibrosis, Grave's ophthalmopathy, drug induced ergotism, cardiovascular disease, cancer, Alzheimer's disease, scarring, scleroderma, glioblastoma in Li-Fraumeni syndrome, sporadic glioblastoma, myeloid leukemia, acute myelogenous leukemia, myelodysplastic syndrome, myeloproliferative syndrome, gynecological cancer, Kaposi's sarcoma, Hansen's disease, or inflammatory bowel disease not including collagenous colitis, renal fibrosis, abdominal adhesions, radiation induced fibrosis, obliterative bronchiolitis, silicosis lesions, or Tenon's capsule fibroproliferation, laser treatment for vascular birthmarks, tattoos, and traumatic scarring, vaginal yeast infections and ulcers of helicobactor pylori.

17. (Currently Amended) The method of Claim 1 wherein said composition is formulated as a tablet or ~~elixer~~ elixir for oral administration.

18. (Original) The method of Claim 1 wherein said composition is administered via a route selected from the group consisting of intramuscular or intravenous administration.

19. (Original) The method of Claim 1 wherein said composition is administered via inhalation.

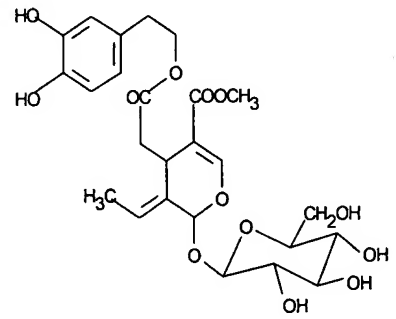
20. (Original) The method of Claim 11 wherein said compound is administered via a route selected from the group consisting of oral, buccal, rectal, parenteral, intraperitoneal, intradermal, transdermal, and intracheal.

21. (Currently Amended) The method of Claim 11 wherein said composition is formulated as a tablet or elixir ~~elixer~~ for oral administration.

22. (Original) The method of Claim 11 wherein said composition is administered via a route selected from the group consisting of intramuscular or intravenous administration.

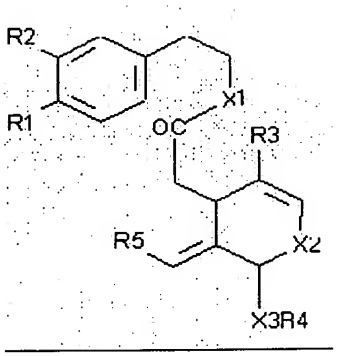
23. (Original) The method of Claim 11 wherein said composition is administered via inhalation.

24. (Original) The method of treating cancer in accordance with Claim 11 wherein said composition comprises the following formula or its enantiomer:



25. (Original) The method of Claim 7 when said at least one composition is selected from the group consisting of oleuropein aglycone, elenolic acid, beta-3, 4, -dihydroxyphenyethyl alcohol and methyl-o-methyl elenolate.

26. (Currently Amended) A method of inhibiting cancer cell growth comprising contacting the cancer cells with a pharmaceutical composition in an amount sufficient to inhibit growth thereof, said pharmaceutical composition containing a therapeutically effective amount of a compound selected from the group consisting of at least one composition produced by the hydrolysis of a compound of the following formula or its enantiomer:



wherein R1 and R2 are functional groups selected from the group consisting of hydroxyl, -NH2, -SH;

R3 is a functional group selected from the group consisting of hydrogen, C1 – C6-alkyl, C2 – C6 – alkenyl, C2 – C6 – alkynyl, aryl, hydroxyl, C1 – C6 – alkoxy, halogen, NO2, NH3 and COOCH3;

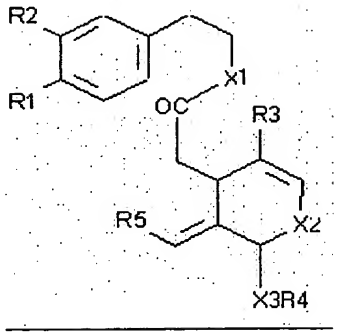
X1-X3 are functional groups selected from the group consisting of oxygen, sulfur, -CH2-, or carboxy;

R4 is a functional group selected from the group consisting of hydrogen, C1-C6-alkoxy, glucose, B-D-glucopyranose, C1-C6-alkyl, C2-C6-alkenyl, C2-C6-alkynyl, aryl, hydroxyl, halogen NO2, NH3, carbohydrate, amino acid, nucleotide and lipid; and

R5 is a functional group selected from the group consisting of hydrogen, C1 – C6-alkyl, C2 – C6 – alkenyl, C2 – C6 – alkynyl, aryl, hydroxyl, C1 – C6 – alkoxy, halogen, NO2, NH3, and CH3; ~~The method of Claim 8~~

wherein said at least one composition is selected from the group consisting of oleuropein aglycone, elenolic acid, beta-3, 4, - dihydroxyphenyethyl alcohol and methyl-o-methyl elenolate.

27. (Currently Amended) A method of inhibiting the growth, motility, invasiveness and metastasis of cancer cells comprising contacting said cells with a pharmaceutical composition in an amount sufficient to inhibit the cancer or recurrence thereof, said pharmaceutical composition containing a therapeutically effective amount of a compound of the following formula or its enantiomer:



wherein R1 and R2 are functional groups selected from the group consisting of hydroxyl, -NH2, -SH;

R3 is a functional group selected from the group consisting of hydrogen, C1 – C6-alkyl, C2 – C6 – alkenyl, C2 – C6 – alkynyl, aryl, hydroxyl, C1 – C6 – alkoxy, halogen, NO2, NH3 and COOCH3.

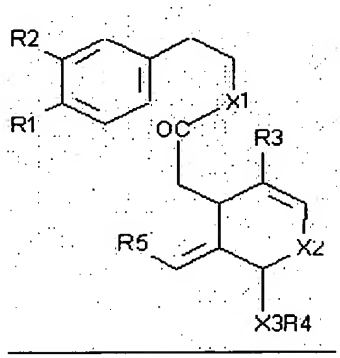
X1 – X3 are functional groups selected from the group consisting of oxygen, sulfur, -CH2-, or carboxy;

R4 is a functional group selected from the group consisting of hydrogen, C1-C6-alkoxy, glucose, B-D-glucopyranose, C1-C6-alkyl, C2-C6-alkenyl, C2-C6-alkynyl, aryl, hydroxyl, halogen NO2, NH3, carbohydrate, amino acid, nucleotide, and lipid; and

R5 is a functional group selected from the group consisting of hydrogen, C1 – C6-alkyl, C2 – C6 – alkenyl, C2 – C6 – alkynyl, aryl, hydroxyl, C1 – C6 – alkoxy, halogen, NO2, NH3 and CH3; ~~The method of Claim 3~~

wherein said inhibition of the survival, growth, motility, invasiveness and metastasis of animal cells occurs *in vivo*.

28. (Currently Amended) A method of inhibiting the growth, motility, invasiveness and metastasis of cancer cells comprising contacting said cells with a pharmaceutical composition in an amount sufficient to inhibit the cancer or recurrence thereof, said pharmaceutical composition containing a therapeutically effective amount of a compound of the following formula or its enantiomer:



wherein R1 and R2 are functional groups selected from the group consisting of hydroxyl, -NH2, -SH;

R3 is a functional group selected from the group consisting of hydrogen, C1 – C6-alkyl, C2 – C6 – alkenyl, C2 – C6 – alkynyl, aryl, hydroxyl, C1 – C6 – alkoxy, halogen, NO2, NH3 and COOCH3.

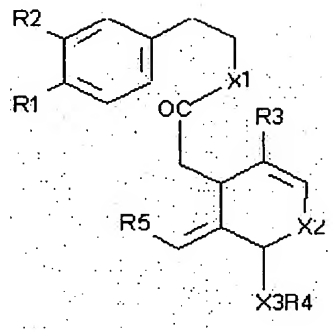
X1 – X3 are functional groups selected from the group consisting of oxygen, sulfur, -CH2-, or carboxy;

R4 is a functional group selected from the group consisting of hydrogen, C1-C6-alkoxy, glucose, B-D-glucopyranose, C1-C6-alkyl, C2-C6-alkenyl, C2-C6-alkynyl, aryl, hydroxyl, halogen NO2, NH3, carbohydrate, amino acid, nucleotide, and lipid; and

R5 is a functional group selected from the group consisting of hydrogen, C1 – C6-alkyl, C2 – C6 – alkenyl, C2 – C6 – alkynyl, aryl, hydroxyl, C1 – C6 – alkoxy, halogen, NO2, NH3 and CH3; ~~The method of Claim 3~~

wherein said inhibition of the survival, growth, motility, invasiveness and metastasis of animal cells occurs *in vitro*.

29. (Currently Amended) A method for selectively targeting and delivering an effective amount of a compound by the R4 moiety of a pharmaceutical compound in an amount sufficient to inhibit the cancerous growth or recurrence of cancer cells selected from the group consisting of colon cancer, renal adenocarcinoma, and melanoma ~~said cells~~, said compound having the following formula or its enantiomer:



wherein R1 and R2 are functional groups selected from the group consisting of hydroxyl, -NH2, -SH;

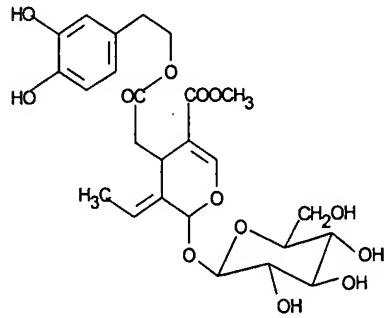
R3 is a functional group selected from the group consisting of hydrogen, C1 – C6-alkyl, C2 – C6 – alkenyl, C2 – C6 – alkynyl, aryl, hydroxyl, C1 – C6 – alkoxy, halogen, NO2, NH3 and COOCH3.

X1 – X3 are functional groups selected from the group consisting of oxygen, sulfur, -CH2-, or carboxy;

R4 is a functional group selected from the group consisting of hydrogen, C1-C6-alkoxy, glucose, B-D-glucopyranose, C1-C6-alkyl, C2-C6-alkenyl, C2-C6-alkynyl, aryl, hydroxyl, halogen NO2, NH3, carbohydrate, amino acid, nucleotide, and lipid; and

R5 is a functional group selected from the group consisting of hydrogen, C1 – C6-alkyl, C2 – C6 – alkenyl, C2 – C6 – alkynyl, aryl, hydroxyl, C1 – C6 – alkoxy, halogen, NO2, NH3 and CH3.

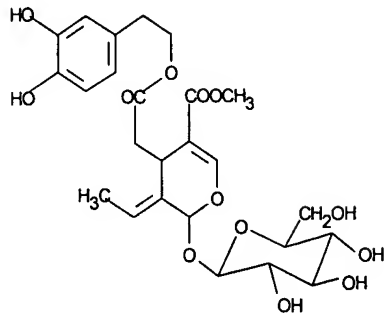
30. (Original) The method of Claim 27 wherein the R4 moiety is B-D-glucopyranose and said composition comprises the following formula or its enantiomer:



31. (Original) The method of Claim 27 wherein said cells are animal cells.

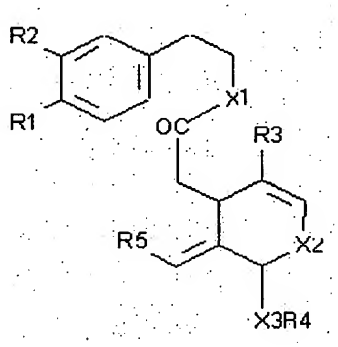
32. (Cancelled)

33. (Original) The method of Claim 30 wherein said composition comprises the following formula or its enantiomer:



34-36 (Cancelled) The method of claim 32 wherein said cells are in a live animal.

37. (Withdrawn) A method for disrupting and preventing the reorganization of the cytoskeleton whereby an animal cell becomes globular, the method comprising contacting the cell with an effective amount of a compound of the following formula I or its enantiomer:



wherein R1 and R2 are hydroxyl, $-NH_2$, -SH functional groups:

R3 is a functional group selected from the group consisting of hydrogen, $C_1 - C_6$-alkyl, $C_2 - C_6$ – alkenyl, $C_2 - C_6$ – alkynyl, aryl, hydroxyl, $C_1 - C_6$ – alkoxy, halogen, NO_2, NH_3 and $COOCH_3$;

X1-X3 are functional groups selected from the group consisting of oxygen, sulfur, -CH_2-, or carboxy;

R4 is a functional group selected from the group consisting of hydrogen, C_1-C_6-alkoxy, glucose, B-D-glucopyranose, C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, aryl, hydroxyl, halogen NO_2, NH_3, carbohydrate, amino acid, nucleotide and lipid; and

R5 is a functional group selected from the group consisting of hydrogen, $C_1 - C_6$-alkyl, $C_2 - C_6$ – alkenyl, $C_2 - C_6$ – alkynyl, aryl, hydroxyl, $C_1 - C_6$ – alkoxy, halogen, NO_2, NH_3, and CH_3.

38. (Withdrawn) The method of claim 37 wherein the cells are mammalian cells.

39. (Withdrawn) The method of claim 37 wherein the cells are human cells.

40. (Withdrawn) The method of claim 37 wherein the cells are normal cells.

41. (Withdrawn) The method of claim 37 wherein the cells are transformed.

42. (Withdrawn) The method of claim 37 wherein the cells are in vitro.

43. (Withdrawn) The method of claim 37 wherein the cells are part of a testing kit.

44. (Withdrawn) The method of claim 37 wherein the cells are in vivo.

45. (Withdrawn) The method of claim 37 wherein the cells are endodermal, ectodermal and mesodemal in origin, adult, embryonic, developing, viral-infected, bacteria-containing, parasite-infected, endothelial, fibroblastic, neuronal, prion-infected, in vivo, in vitro, egg, sperm, healthy, diseased, senescent, apoptotic, skin, heart, liver, muscle, mucosal, retinal, vascular, or transformed.

46. (Withdrawn) The method of claim 37 wherein the cells reside in tumors of Acute Lymphoblastic Leukemia, Adult; Acute Lymphoblastic Leukemia, Childhood; Acute Myeloid Leukemia, Adult; Adrenocortical Carcinoma; Adrenocortical Carcinoma, Childhood; AIDS-Related Lymphoma;AIDS-Related Malignancies; Anal Cancer; Astrocytoma, Childhood Cerebellar; Astrocytoma, Childhood Cerebral; Bile Duct Cancer, Extrahepatic; Bladder Cancer; Bladder Cancer, Childhood; Bone Cancer, Osteosarcoma/Malignant Fibrous Histiocytoma; Brain Stem Glioma, Childhood; Brain Tumor, Adult; Brain Tumor, Brain Stem Glioma, Childhood; Brain Tumor, Cerebellar Astrocytoma, Childhood; Brain Tumor, Cerebral Astrocytoma/Malignant Glioma, Childhood; Brain Tumor, Ependymoma, Childhood; Brain Tumor, Medulloblastoma, Childhood; Brain Tumor, Supratentorial Primitive Neuroectodermal Tumors, Childhood;

Brain Tumor, Visual Pathway and Hypothalamic Glioma, Childhood; Brain Tumor, Childhood (Other); Breast Cancer; Breast Cancer and Pregnancy; Breast Cancer, Childhood; Breast Cancer, Male; Bronchial Adenomas/Carcinoids, Childhood; Carcinoid Tumor, Childhood; Carcinoid Tumor,Gastrointestinal; Carcinoma, Adrenocortical; Carcinoma, Islet Cell; Carcinoma of Unknown Primary; Central Nervous System Lymphoma, Primary; Cerebellar Astrocytoma, Childhood; Cerebral Astrocytoma/Malignant Glioma, Childhood; Cervical Cancer; Childhood Cancers; Chronic Lymphocytic Leukemia; Chronic Myelogenous Leukemia; Chronic Myeloproliferative Disorders; Clear Cell Sarcoma of Tendon Sheaths; Colon Cancer; Colorectal Cancer, Childhood; Cutaneous T-Cell Lymphoma; Endometrial Cancer; Ependymoma, Childhood; Epithelial Cancer, Ovarian; Esophageal Cancer; Esophageal Cancer, Childhood; Ewing's Family of Tumors; Extracranial Germ Cell Tumor, Childhood; Extragonadal Germ Cell Tumor; Extrahepatic Bile Duct Cancer; Eye Cancer, Intraocular Melanoma; Eye Cancer, Retinoblastoma; Gallbladder Cancer; Gastric (Stomach) Cancer; Gastric (Stomach) Cancer, Childhood; Gastrointestinal Carcinoid Tumor; Germ Cell Tumor, Extracranial, Childhood; Germ Cell Tumor, Extragonadal; Germ Cell Tumor, Ovarian; Gestational Trophoblastic Tumor; Glioma, Childhood Brain Stem; Glioma, Childhood Visual Pathway and Hypothalamic; Hairy Cell Leukemia; Head and Neck Cancer; Hepatocellular (Liver) Cancer, Adult (Primary); Hepatocellular (Liver) Cancer, Childhood (Primary); Hodgkin's Lymphoma, Adult; Hodgkin's Lymphoma, Childhood; Hodgkin's Lymphoma During Pregnancy; Hypopharyngeal Cancer; Hypothalamic and Visual Pathway Glioma, Childhood; Intraocular Melanoma; Islet Cell Carcinoma (Endocrine Pancreas); Kaposi's Sarcoma; Kidney Cancer ; Laryngeal Cancer; Laryngeal Cancer, Childhood; Leukemia, Acute Lymphoblastic, Adult; Leukemia, Acute Lymphoblastic, Childhood; Leukemia, Acute Myeloid, Adult; Leukemia, Acute Myeloid, Childhood; Leukemia, Chronic Lymphocytic; Leukemia, Chronic Myelogenous; Leukemia, Hairy Cell; Lip and Oral Cavity Cancer; Liver Cancer, Adult (Primary); Liver Cancer, Childhood (Primary); Lung Cancer, Non-Small Cell; Lung Cancer, Small Cell; Lymphoblastic Leukemia, Adult Acute; Lymphoblastic Leukemia, Childhood Acute; Lymphocytic Leukemia, Chronic; Lymphoma, AIDS-Related; Lymphoma, Central Nervous System (Primary); Lymphoma, Cutaneous T-Cell; Lymphoma, Hodgkin's, Adult;

Lymphoma, Hodgkin's, Childhood; Lymphoma, Hodgkin's During Pregnancy; Lymphoma, Non-Hodgkin's, Adult; Lymphoma, Non-Hodgkin's, Childhood; Non-Hodgkin's During Pregnancy; Lymphoma, Primary Central Nervous System; Macroglobulinemia, Waldenström's; Male Breast Cancer; Malignant Mesothelioma, Adult; Malignant Mesothelioma, Childhood; Medulloblastoma, Childhood; Melanoma; Melanoma, Intraocular; Merkel Cell Carcinoma; Mesothelioma, Malignant; Metastatic Squamous Neck Cancer with Occult Primary; Multiple Endocrine Neoplasia Syndrome, Childhood; Multiple Myeloma/Plasma Cell Neoplasm; Mycosis Fungoides; Myelodysplastic Syndromes; Myelogenous Leukemia, Chronic; Myeloid Leukemia, Childhood Acute; Myeloma, Multiple; Myeloproliferative Disorders, Chronic; Nasal Cavity and Paranasal Sinus Cancer; Nasopharyngeal Cancer; Nasopharyngeal Cancer, Childhood; Neuroblastoma; Non-Hodgkin's Lymphoma, Adult; Non-Hodgkin's Lymphoma, Childhood; Non-Hodgkin's Lymphoma During Pregnancy; Non-Small Cell Lung Cancer; Oral Cancer, Childhood; Oral Cavity and Lip Cancer; Oropharyngeal Cancer; Osteosarcoma/Malignant Fibrous Histiocytoma of Bone ;Ovarian Cancer, Childhood; Ovarian Epithelial Cancer; Ovarian Germ Cell Tumor; Ovarian Low Malignant Potential Tumor; Pancreatic Cancer; Pancreatic Cancer, Childhood; Pancreatic Cancer, Islet Cell; Paranasal Sinus and Nasal Cavity Cancer; Parathyroid Cancer; Penile Cancer; Pheochromocytoma; Pineal and Supratentorial Primitive Neuroectodermal Tumors, Childhood; Pituitary Tumor; Plasma Cell Neoplasm/Multiple Myeloma; Pleuropulmonary Blastoma; Pregnancy and Breast Cancer; Pregnancy and Hodgkin's Lymphoma; Pregnancy and Non-Hodgkin's Lymphoma; Primary Central Nervous System Lymphoma; Primary Liver Cancer, Adult; Primary Liver Cancer, Childhood; Prostate Cancer; Rectal Cancer; Renal Cell (Kidney) Cancer; Renal Cell Cancer, Childhood; Renal Pelvis and Ureter, Transitional Cell Cancer; Retinoblastoma; Rhabdomyosarcoma, Childhood; Salivary Gland Cancer ;Salivary Gland Cancer, Childhood; Sarcoma, Ewing's Family of Tumors; Sarcoma, Kaposi's; Sarcoma (Osteosarcoma)/Malignant Fibrous Histiocytoma of Bone; Sarcoma, Rhabdomyosarcoma, Childhood; Sarcoma, Soft Tissue, Adult; Sarcoma, Soft Tissue, Childhood; Sezary Syndrome; Skin Cancer; Skin Cancer, Childhood; Skin Cancer (Melanoma); Skin Carcinoma, Merkel Cell; Small Cell Lung Cancer; Small Intestine Cancer; Soft Tissue Sarcoma, Adult; Soft Tissue Sarcoma,

Childhood; Squamous Neck Cancer with Occult Primary, Metastatic; Stomach (Gastric) Cancer; Stomach (Gastric) Cancer, Childhood; Supratentorial Primitive Neuroectodermal Tumors, Childhood; T-Cell Lymphoma, Cutaneous; Testicular Cancer; Thymoma, Childhood; Thymoma and Thymic Carcinoma; Thyroid Cancer; Thyroid Cancer, Childhood; Transitional Cell Cancer of the Renal Pelvis and Ureter; Trophoblastic Tumor, Gestational; Unknown Primary Site, Carcinoma of, Adult; Unknown Primary Site, Cancer of, Childhood; Unusual Cancers of Childhood; Ureter and Renal Pelvis, Transitional Cell Cancer; Urethral Cancer; Uterine Cancer, Endometrial; Uterine Sarcoma; Vaginal Cancer; Visual Pathway and Hypothalamic Glioma, Childhood; Vulvar Cancer; Waldenström's Macroglobulinemia; Wilms' Tumor.

47. (Withdrawn) The method of claim 37 wherein the cells are chemically exposed, heat exposed, radioactively exposed, undergoing healing, traumatized, fibrotic, cystic, keloidic, in an acne state, gastritic, vaginal, cervical, uterine, ovary, gastric, corneal, retinal, diabetic, AIDS-infected, influenza-infected, iliac, colon, ulceric, lung, kidney, human fibrotic lung diseased, human kidney diseased, glomerular nephritic, with nephritis associated with systemic lupus, peritoneal fibrotic, cystic fibrotic, liver fibrotic, myocardial fibrotic, pulmonary fibrotic, Grave's ophthalmopathic, drug induced ergotistic, cardiovascular diseased, cancer, Alzheimer's diseased, scarred, sclerodermatic, glioblastomic in Li-Fraumeni syndrome, in sporadic glioblastoma, in myeloid leukemia, in acute myelogenous leukemia, in myelodysplastic syndrome, in myeloproliferative syndrome, in gynecological cancer, in Kaposi's sarcoma, in Hansen's disease, or in inflammatory bowel disease not including collagenous colitis, in renal fibrosis, in abdominal adhesions, in radiation induced fibrosis, in obliterative bronchiolitis, in silicosis lesions, or in Tenon's capsule fibroproliferation, in composing birthmarks, tattoos, and traumatic scarring, in vaginal yeast infections and in ulcers of helicobacter pylori.

48. (Withdrawn) The method of claim 37 wherein said cells form blisters, ulcerations, scabs and scars.

49. (Withdrawn) The method of Claim 37 wherein said composition is formulated as a capsule, tablet or elixir for oral administration.

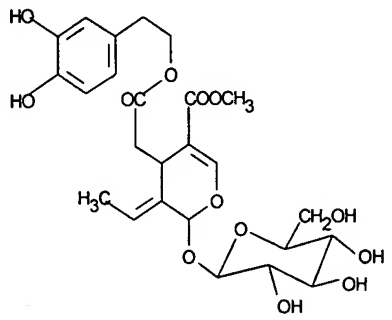
50. (Withdrawn) The method of Claim 37 wherein said composition is administered via a route selected from the group consisting of intramuscular or intravenous administration.

51. (Withdrawn) The method of Claim 37 wherein said composition is administered via inhalation.

52. (Withdrawn) The method of Claim 37 wherein said compound is administered via a route selected from the group consisting of oral, topical, ocular, intraocular, mucosal, buccal, rectal, parenteral, intraperitoneal, intradermal, transdermal, and intracheal.

53. (Withdrawn) The method of claim 37 wherein the selective targeting and delivering of an effective amount of a compound of formula I is by the R4 moiety.

54. (Withdrawn) A method for disrupting and preventing the reorganization of the cytoskeleton whereby an animal cell becomes globular, the method comprising contacting the cell with an effective amount of a compound of the following formula II or its enantiomer:



55. (Withdrawn) The method of claim 54 wherein the cells are mammalian cells.

56. (Withdrawn) The method of claim 54 wherein the cells are human cells.

57. (Withdrawn) The method of claim 54 wherein the cells are normal cells.

58. (Withdrawn) The method of claim 54 wherein the cells are transformed.

59. (Withdrawn) The method of claim 54 wherein the cells are in vitro.

60. (Withdrawn) The method of claim 54 wherein the cells are part of a testing kit.

61. (Withdrawn) The method of claim 54 wherein the cells are in vivo.

62. (Withdrawn) The method of claim 54 wherein the cells are endodermal, ectodermal and mesodemal in origin, adult, embryonic, developing, viral-infected, bacteria-containing, parasite-infected, endothelial, fibroblastic, neuronal, prion-infected, in vivo, in vitro, egg, sperm, healthy, diseased, senescent, apoptotic, skin, heart, liver, muscle, mucosal, retinal, vascular, or transformed.

63. (Withdrawn) The method of claim 54 wherein the cells reside in tumors of Acute Lymphoblastic Leukemia, Adult; Acute Lymphoblastic Leukemia, Childhood; Acute Myeloid Leukemia, Adult; Adrenocortical Carcinoma; Adrenocortical Carcinoma, Childhood; AIDS-Related Lymphoma;AIDS-Related Malignancies; Anal Cancer; Astrocytoma, Childhood Cerebellar; Astrocytoma, Childhood Cerebral; Bile Duct Cancer, Extrahepatic; Bladder Cancer; Bladder Cancer, Childhood; Bone Cancer; Osteosarcoma/Malignant Fibrous Histiocytoma; Brain Stem Glioma, Childhood; Brain Tumor, Adult; Brain Tumor, Brain Stem Glioma, Childhood; Brain Tumor, Cerebellar Astrocytoma, Childhood; Brain Tumor, Cerebral Astrocytoma/Malignant Glioma, Childhood; Brain Tumor, Ependymoma, Childhood; Brain Tumor, Medulloblastoma, Childhood; Brain Tumor, Supratentorial Primitive Neuroectodermal Tumors, Childhood; Brain Tumor, Visual Pathway and Hypothalamic Glioma, Childhood; Brain Tumor, Childhood (Other); Breast Cancer; Breast Cancer and Pregnancy; Breast Cancer, Childhood; Breast Cancer, Male; Bronchial Adenomas/Carcinoids, Childhood; Carcinoid Tumor, Childhood; Carcinoid Tumor,Gastrointestinal; Carcinoma, Adrenocortical; Carcinoma, Islet Cell; Carcinoma of Unknown Primary; Central Nervous System Lymphoma, Primary; Cerebellar Astrocytoma, Childhood; Cerebral Astrocytoma/Malignant Glioma, Childhood; Cervical Cancer; Childhood Cancers; Chronic Lymphocytic Leukemia; Chronic Myelogenous Leukemia; Chronic Myeloproliferative Disorders; Clear Cell Sarcoma of Tendon Sheaths; Colon Cancer; Colorectal Cancer, Childhood; Cutaneous T-Cell Lymphoma; Endometrial Cancer; Ependymoma, Childhood; Epithelial Cancer, Ovarian; Esophageal Cancer; Esophageal Cancer, Childhood; Ewing's Family of Tumors; Extracranial Germ Cell Tumor, Childhood; Extragonadal Germ Cell Tumor; Extrahepatic Bile Duct Cancer; Eye Cancer, Intraocular Melanoma; Eye Cancer, Retinoblastoma; Gallbladder Cancer; Gastric (Stomach) Cancer; Gastric (Stomach) Cancer, Childhood; Gastrointestinal

Carcinoid Tumor; Germ Cell Tumor, Extracranial, Childhood; Germ Cell Tumor, Extragonadal; Germ Cell Tumor, Ovarian; Gestational Trophoblastic Tumor; Glioma, Childhood Brain Stem; Glioma, Childhood Visual Pathway and Hypothalamic; Hairy Cell Leukemia; Head and Neck Cancer; Hepatocellular (Liver) Cancer, Adult (Primary); Hepatocellular (Liver) Cancer, Childhood (Primary); Hodgkin's Lymphoma, Adult; Hodgkin's Lymphoma, Childhood; Hodgkin's Lymphoma During Pregnancy; Hypopharyngeal Cancer; Hypothalamic and Visual Pathway Glioma, Childhood; Intraocular Melanoma; Islet Cell Carcinoma (Endocrine Pancreas); Kaposi's Sarcoma; Kidney Cancer ; Laryngeal Cancer; Laryngeal Cancer, Childhood; Leukemia, Acute Lymphoblastic, Adult; Leukemia, Acute Lymphoblastic, Childhood; Leukemia, Acute Myeloid, Adult; Leukemia, Acute Myeloid, Childhood; Leukemia, Chronic Lymphocytic; Leukemia, Chronic Myelogenous; Leukemia, Hairy Cell; Lip and Oral Cavity Cancer; Liver Cancer, Adult (Primary); Liver Cancer, Childhood (Primary); Lung Cancer, Non-Small Cell; Lung Cancer, Small Cell; Lymphoblastic Leukemia, Adult Acute; Lymphoblastic Leukemia, Childhood Acute; Lymphocytic Leukemia, Chronic; Lymphoma, AIDS-Related; Lymphoma, Central Nervous System (Primary); Lymphoma, Cutaneous T-Cell; Lymphoma, Hodgkin's, Adult; Lymphoma, Hodgkin's, Childhood; Lymphoma, Hodgkin's During Pregnancy; Lymphoma, Non-Hodgkin's, Adult; Lymphoma, Non-Hodgkin's, Childhood; Non-Hodgkin's During Pregnancy; Lymphoma, Primary Central Nervous System; Macroglobulinemia, Waldenström's; Male Breast Cancer; Malignant Mesothelioma, Adult; Malignant Mesothelioma, Childhood; Medulloblastoma, Childhood; Melanoma; Melanoma, Intraocular; Merkel Cell Carcinoma; Mesothelioma, Malignant; Metastatic Squamous Neck Cancer with Occult Primary; Multiple Endocrine Neoplasia Syndrome, Childhood; Multiple Myeloma/Plasma Cell Neoplasm; Mycosis Fungoides; Myelodysplastic Syndromes; Myelogenous Leukemia, Chronic; Myeloid Leukemia, Childhood Acute; Myeloma, Multiple; Myeloproliferative Disorders, Chronic; Nasal Cavity and Paranasal Sinus Cancer; Nasopharyngeal Cancer; Nasopharyngeal Cancer, Childhood; Neuroblastoma; Non-Hodgkin's Lymphoma, Adult; Non-Hodgkin's Lymphoma, Childhood; Non-Hodgkin's Lymphoma During Pregnancy; Non-Small Cell Lung Cancer; Oral Cancer, Childhood; Oral Cavity and Lip Cancer; Oropharyngeal Cancer; Osteosarcoma/Malignant Fibrous

Histiocytoma of Bone ;Ovarian Cancer, Childhood; Ovarian Epithelial Cancer; Ovarian Germ Cell Tumor; Ovarian Low Malignant Potential Tumor; Pancreatic Cancer; Pancreatic Cancer, Childhood; Pancreatic Cancer, Islet Cell; Paranasal Sinus and Nasal Cavity Cancer; Parathyroid Cancer; Penile Cancer; Pheochromocytoma; Pineal and Supratentorial Primitive Neuroectodermal Tumors, Childhood; Pituitary Tumor; Plasma Cell Neoplasm/Multiple Myeloma; Pleuropulmonary Blastoma; Pregnancy and Breast Cancer; Pregnancy and Hodgkin's Lymphoma; Pregnancy and Non-Hodgkin's Lymphoma; Primary Central Nervous System Lymphoma; Primary Liver Cancer, Adult; Primary Liver Cancer, Childhood; Prostate Cancer; Rectal Cancer; Renal Cell (Kidney) Cancer; Renal Cell Cancer, Childhood; Renal Pelvis and Ureter, Transitional Cell Cancer; Retinoblastoma; Rhabdomyosarcoma, Childhood; Salivary Gland Cancer ;Salivary Gland Cancer, Childhood; Sarcoma, Ewing's Family of Tumors; Sarcoma, Kaposi's; Sarcoma (Osteosarcoma)/Malignant Fibrous Histiocytoma of Bone; Sarcoma, Rhabdomyosarcoma, Childhood; Sarcoma, Soft Tissue, Adult; Sarcoma, Soft Tissue, Childhood; Sezary Syndrome; Skin Cancer; Skin Cancer, Childhood; Skin Cancer (Melanoma); Skin Carcinoma, Merkel Cell; Small Cell Lung Cancer; Small Intestine Cancer; Soft Tissue Sarcoma, Adult; Soft Tissue Sarcoma, Childhood; Squamous Neck Cancer with Occult Primary, Metastatic; Stomach (Gastric) Cancer; Stomach (Gastric) Cancer, Childhood; Supratentorial Primitive Neuroectodermal Tumors, Childhood; T-Cell Lymphoma, Cutaneous; Testicular Cancer; Thymoma, Childhood; Thymoma and Thymic Carcinoma; Thyroid Cancer; Thyroid Cancer, Childhood; Transitional Cell Cancer of the Renal Pelvis and Ureter; Trophoblastic Tumor, Gestational; Unknown Primary Site, Carcinoma of, Adult; Unknown Primary Site, Cancer of, Childhood; Unusual Cancers of Childhood; Ureter and Renal Pelvis, Transitional Cell Cancer; Urethral Cancer; Uterine Cancer, Endometrial; Uterine Sarcoma; Vaginal Cancer; Visual Pathway and Hypothalamic Glioma, Childhood; Vulvar Cancer; Waldenström's Macroglobulinemia; Wilms' Tumor.

64. (Withdrawn) The method of claim 54 wherein the cells are chemically exposed, heat exposed, radioactively exposed, undergoing healing, traumatized, fibrotic, cystic, keloidic, in an acne state, gastritic, vaginal, cervical, uterine, ovary, gastric, corneal, retinal, diabetic, AIDS-infected, influenza-infected, iliac, colon, ulceric, lung, kidney, human

fibrotic lung diseased, human kidney diseased, glomerular nephritic, with nephritis associated with systemic lupus, peritoneal fibrotic, cystic fibrotic, liver fibrotic, myocardial fibrotic, pulmonary fibrotic, Grave's ophthalmopathic, drug induced ergotistic, cardiovascular diseased, cancer, Alzheimer's diseased, scarred, sclerodermatic, glioblastomic in Li-Fraumeni syndrome, in sporadic glioblastoma, in myeloid leukemia, in acute myelogenous leukemia, in myelodysplastic syndrome, in myeloproliferative syndrome, in gynecological cancer, in Kaposi's sarcoma, in Hansen's disease, or in inflammatory bowel disease not including collagenous colitis, in renal fibrosis, in abdominal adhesions, in radiation induced fibrosis, in obliterative bronchiolitis, in silicosis lesions, or in Tenon's capsule fibroproliferation, in composing birthmarks, tattoos, and traumatic scarring, in vaginal yeast infections and in ulcers of helicobacter pylori.

65. (Withdrawn) The method of claim 54 wherein said cells form blisters, ulcerations, scabs and scars.

66. (Withdrawn) The method of Claim 54 wherein said composition is formulated as a capsule, tablet or elixir for oral administration.

67. (Withdrawn) The method of Claim 54 wherein said composition is administered via a route selected from the group consisting of intramuscular or intravenous administration.

68. (Withdrawn) The method of Claim 54 wherein said composition is administered via inhalation.

69. (Withdrawn) The method of Claim 54 wherein said compound is administered via a route selected from the group consisting of oral, topical, ocular, intraocular, mucosal, buccal, rectal, parenteral, intraperitoneal, intradermal, transdermal, and intracheal.

70. (Withdrawn) The method of claim 54 wherein the selective targeting and delivering of an effective amount of a compound of formula I is by the R4 moiety.

71. (Withdrawn) The method of claim 70 wherein the R4 moiety is B-D-glucopyranose, carbohydrate, fatty acids, lipids, amino acids, and nucleotides.